An - Najah Univ. J. Res. (H. Sc.) Vol. 22(3), 2008

Evaluating the Quality Improvement Program in the Palestinian Ministry of Health

تقييم برنامج تطوير الجودة في وزارة الصحة الفلسطينية

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Received: (25/9/2007). Accepted: (27/2/2008)

Abstract

This analytical research will evaluate the experience of implementing the Quality Improvement Program in the Ministry of Health from 2000-2005 using the theory testing approach and the participant observation. First, the strategic dimension necessary to the successful implementation of quality improvement initiatives was analyzed and found that the goals and objectives of the Quality Improvement Program were satisfactory implemented. Second, analyzing the cultural dimension showed that the needs of the internal and external customers were considered but more focus should be on fostering openness, collaboration, teamwork and learning from mistakes. Third, the technical dimension was taken into consideration as necessary training and information support systems were provided in order to develop the planning and managerial capacities. Finally, the components of the structural dimension such as providing the appropriate mechanisms to facilitate learning and disseminate the best practices such as forming task forces, committees, quality improvement councils and units were introduced.

ملخص

يهدف هذا البحث التحليلي إلى تقييم تجربة تطبيق برنامج تطوير الجودة في وزارة الصحة الفلسطينية من عام ٢٠٠٠- ٢٠٠٥ من خلال استخدام الأسلوب النظري والملاحظة بالمشاركة. توصل البحث إلى أن البعد الاستراتيجي اللازم لتطبيق نشاطات تطوير الجودة قد اخذ بعين الاعتبار حيث تم تحقيق غايات وأهداف برنامج تطوير الجودة في وزارة الصحة بشكل مرضي. أما البعد الثقافي فقد تم أخذه بعين الاعتبار من خلال التركيز على احتياجات المنتفع الداخلي والخارجي مع الأخذ بعين الاعتبار ضرورة التركيز على التعاون، العمل الجماعي، الانفتاح، والتعلم من الأخطاء. أما بالنسبة للبعد الفني، فقد تم توفير التدريب ونظم المعلومات الداعمة لتطوير القدرات في مجال التخطيط والإدارة. أخيرا تم اخذ البعد التنظيمي بعين الاعتبار من خلال توفير أدوات تساعد على التعلم.

Introduction

The current health care system in Palestine is not well positioned to address the health needs of the Palestinian population. Like many middle-income countries, Palestine is going through an epidemiological transition with its associated increase in chronic diseases while still facing challenges related to infectious and maternal/child-related morbidity and mortality. The system is poorly equipped to deal with the rising burden of chronic disease and accidents, which account for a large and growing share of mortality (and morbidity). Primary, secondary, and tertiary prevention are inadequate or completely lacking. The ability of health care providers to detect and treat population, including victims of *intifada* and those with the repeated psychological traumas is vastly inadequate. The public has little faith in the public Health Care System when facing serious health problems. Like many other public health care systems, the Palestinian public service delivery is characterized by low quality, overcrowding, unresponsive providers, periodic shortages of drugs and supplies, non-functioning equipment, and a lack of capacity to provide key services. Infrastructure is inadequate and/or outdated, and there is a shortage, or absence, of qualified specialists in a number of areas and specialties. Therefore, public uses costly private services when facing serious health problems.

To resolve those issues, the Ministry of Health (MOH) implemented a Quality Improvement Program from 1994-2005. The journey of quality

improvement in the Palestinian Ministry of Health from 1994-2000 was previously studied by the researcher and recommendations were presented to the Palestinian Ministry of Health. This analytical research will evaluate the experience of implementing the Quality Improvement Program in the Ministry of Health from 2000-2005 using the theory testing approach and the participant observation (hence the researches was the manager for the Quality Improvement Program since its establishment in 1996-2005) as a qualitative research methodology. In this research, the previous models and theories of quality improvement have been studied and it was concluded that the most frequent dimensions or factors that are critical for successful quality improvement implementation can be grouped to: strategic, cultural, structural, and technical These dimensions or factors will be studied in this research and lessons and recommendations will be concluded and suggested for future quality improvement initiatives in the Ministry of Health.

Literature Review

The first attempts to improve the management of quality used quality circles to attack the need for training in traditional quality control techniques and for employee involvement. Quality circles were not generally very successful in Europe or North America (Hayward & Dale, 1984, p.557-568 and (Hill, 1991, p.541-568) the next step in the development of quality management was to address the need for quality control to be a company-wide exercise. Quality Control is a continuous process that starts with production and ends with the customer. Quality Control is therefore can be classified into feed forward control, concurrent control, and feedback control (Kashroom and Mousa, 1999, p.431). The concept of company-wide quality control, often known as total quality control, was diffusing into North America by the early 1980s (Hattori, 1984, p.15-19 and Karatsu, 1982, p.29-31). TQM uses the idea of a customer focus, on either an internal or an external customer, to provide a framework for assessing quality. As the need for a focus on the customer and the important role of employee involvement in successful quality management became clear, the term TQM began to replace total

quality control. The concept of a customer focus, and the development of traditional quality control techniques for use outside the production area, made TQM applicable to both service industries (Kunishi, 1984, p.9-14 and Milakovich, 1991, p.195-213) and government agencies (McCabe & Lewin, 1992, p.112-123). TQM is a system that includes a group of comprehensive intellectual philosophies, statistical tools, and managerial processes that are used to accomplish the objectives and increase the customer and the employee satisfaction (Kathem, 2000, p.71)· Total Quality Management is a continuous set of mindset that keeps on improvement processes for individuals, groups, and whole organizations by understanding and discovering better process (Janpen et al, 2005, p.2). The elements of TQM may be grouped into two dimensions: the management system (leadership, planning, human resources), and the technical system (TQM tools and techniques) or in to soft and hard (Tari and Sabater, 2004, p.267-280). This is consistent with another view of TQM which conceptualizes TQM either as a limited set o technical tools or broader changes to human resource (Prajogo and Sohal, 2006, P.35-50). The Characteristics of quality improvement include: Continuous customer satisfaction, Best utilization of resources, improving production qualitatively and quantitatively, Cost reduction, Improving work environment, and Improving safety procedures. (Hallawani, 2004, p. 17) In North America, the so-called quality gurus have been instrumental in diffusing TQM while in the U.K., the government has taken the initiative. (Jackson, 1990, p.95-101). The heavy promotion of TQM as a new management philosophy in a wide variety of forums has attracted criticism and warnings from several sources. Specific concerns can be grouped under two main headings. First, there are those who feel that TQM's emphasis on incremental fine tuning rather than innovation does not go far enough in making the changes that some firms may require (Chorn, 1991, p.31-35 and Lawler, 1994, p.68-76).

A different view holds that firms have unrealistic expectations of what TQM can do for them (Easton, 1993, p.32-54 Tickel, 1993, p.23-26 and Walter, 1993, p.111-112). In the health care sector, There has been considerable debate among health researchers and physicians about the

best way to define "quality," but the framework that has been the most widely used is one that distinguishes between structure, process and outcomes (Donabedian, 1980, p.81). Structure refers to the "relatively stable characteristics of the providers of care, of the tools and resources they have at their disposal and of the physical and organizational settings in which they work". The structural aspects of health care include the "bricks and mortar" of hospitals and clinics, the equipment that is available therein, and the underlying training and skills of the practitioners. Processes are the set of activities that occur within and between health practitioners (doctors, nurses, therapists, etc.) and patients. The quality of these processes can be judged against scientific, professional and social norms. Health outcomes are the "changes in a patient's current and future health status that can be attributed to antecedent health care." (Donabedian, 1980, p. 83).

Furthermore, health policy makers in any country see TQM as improving the health of the society as a whole using the available resources (Alomar, 2002, p.311). The success of implementing TQM in general and in the health sector in particular depends on having a unified vision between the service providers and the customers. (Alasaf, 2001, p.24). Applying TQM in the health sector requires strong supervisor support which will lead to improving the efficiency of employee performance (Alomayrah, 2003, p.7). This is because health care organizations is characterized by having a gab between the medical and managerial levels which should be bridged in order to secure the success of implementing TQM. (Alahmady, 2000, p.42).

Quality Improvement Research

The earliest academic researchers concentrated on the question of the degree to which quality improvement was dependent on the culture of the workforce (Forker, 1991, p.63-74, Lewis, 1992, p.42-45, and Oliver & Wilkinson, 1989, p.73-91). The research suggests that North American management will have to change its practices, and increase its commitment to quality, to obtain the benefits of quality improvement. Quality management was studied in U.S. and Japanese room air

conditioner manufacturers, and it was found that not only that attitudes and policies about quality differed, but that the two countries faced a different mix of quality problems because of their different performance with respect to quality. (Garvin, 1986, p.653-673) A second area that has been investigated is the information system requirements for supporting quality improvement. Functional deployment (QFD) and data flow diagrams was used to build a model of quality in a service facility. (Chang & Lin, (1991, p.117-122) the third area is the issue of appropriate measurement and assessment of performance when quality improvements implemented. Traditional and non-traditional performance indicators were studied in four Australian companies. (Fisher, 1992, p.44-52). It was found that although quality improvement had a significant impact on operations, that impact could not be tied to any improvement in the traditional measures, such as return on investment. The agenda in quality improvement needs to move away from trying to show whether it works and towards understanding how and why it works. The most common shortcomings of previous research into quality improvement programs have been implementation assessment failure, outcome assessment failure, outcome attribution failure, explanation failure, and measurement variability. (vretveit & Gustafson, 2002, p.270-275). Little research has been done into their effectiveness or the conditions needed to implement quality programs successfully. This is partly because the programs are difficult to evaluate, they change over time, are applied to changing organizations, and need to be assessed from different perspectives. However, research can produce valid and useful knowledge about how to make such programs work**.** (vretveit, 2003, p. 759-761). Unsystematic reviews of the research show that few healthcare organizations have successfully implemented a quality programs. (Blumenthal & Kilo, 1998, p.625-648 and Bigelow & Arndt, 1995, p.15-25) However, the evidence provided by the studies is limited. Another problem is that there are many criteria of success of a program. Each will usually have short and long term outcomes, and these often need to be studied from the perspectives of different parties. It is also difficult to prove that any change is due to the program, given their evolving nature, their target, the environment, and the long timescales. (Plsek & Wilson, 2000, p.746-

749). The following designs have been offered to the researchers who intend to evaluate the quality improvement programs. The choice of design depends on the type of quality program (short or long term, prescribed or flexible, stable or changing?) who the research is for, and the questions to be examined (was it carried out as planned? did it achieve its objectives? what were the outcomes? what explains outcomes or success or failure?) (vretveit, 2003, p.759-761).

Descriptive Case Design

This design simply aims to describe the program as implemented. There is no attempt to gather data about outcomes, but data are obtained on what knowledgeable stakeholders expect from the program and their perceptions of the strengths and weaknesses of the program. This can be carried out through out observational studies.

Audit Design

The audit design takes a written statement about what people should do, such as a protocol or plan, and compares it with what they actually do. This quick and low cost evaluation is useful when there is evidence that following a program or protocol will result in certain outcomes. It can be used to describe how far managers and health staff follow prescriptions for quality programs and why they may diverge from these prescriptions.

Before and after Designs

Before and after studies are prospective and may be single case or comparative. The single case design gathers data about the target of the intervention before and after (or during) the intervention. The outcomes are the differences between the before and after data. The immediate target is the organization and staff, but the ultimate targets are patients. Comparative before and after designs produce stronger evidence that any changes are due to the program and not to something else.

Retrospective or Concurrent Evaluation Designs

In these designs, the researcher can use either a quasi-experimental theory testing approach or a theory building approach. An example of a theory testing approach is the prediction testing survey. The researcher studies previous theories or empirical research to identify hypothetical factors that are critical for success (for example, sufficient resources, continuity of management, aspects of culture) and then tests these to find which are associated with successful and unsuccessful programs.

Research Questions

This research will attempt to answer the following questions

- How was the strategic dimension taken in to considerations when the Quality Improvement Program was implemented?
- How was the cultural dimension taken in to considerations when the Quality Improvement Program was implemented?
- How was the technical dimension taken in to considerations when the Quality Improvement Program was implemented?
- How was the structural dimension taken in to considerations when the Quality Improvement Program was implemented?

Research Methodology

To answer the above research questions, an analytical research based on the theory testing approach using participant observation as a qualitative research methodology will be used. This choice is based on the recommendations of the latest studies and researches on quality improvement which state that a sense of urgency surrounding the need to improve health care quality has led to the use of interventions with limited evidence. Many designs have been offered for evaluating quality improvement programs, among them is the a theory testing approach. (vretveit, 2003, p.759-761). In this approach, the researcher will study previous theories or empirical research to identify hypothetical factors that are critical for successful implementation of quality improvement.

These factors will be then tested to find which are associated with successful and unsuccessful programs for evaluating health care initiatives. In this research, the previous models and theories of quality improvement have been studied and it was concluded that the most frequent dimensions or factors that are critical for successful quality improvement implementation are: strategic, cultural, structural, and technical . These dimensions or factors will be studied using participant observation as a qualitative methodology hence the researcher was the manager for the Quality Improvement Program since its establishment in 1996-2005. The participant observation methodology will be strengthened by data from the different evaluation reports that were published by the ministry of Health as the beneficiary from the Quality Improvement Program and the World Bank as the funding agency.

Answering Research Questions

Question 1: *How was the strategic dimension taken in to considerations when the Quality Improvement Program was implemented?*

To answer this question the conditions and processes that are strategically most important to the Ministry of Health and that offer the greatest opportunity for improvement should be examined. Furthermore, we should examine if the selected goals for improvement fit in the Ministry's strategic priorities and if quality improvement was made a central part in the Ministry's planning process. Since launching the Quality Improvement Program in 2000 the goals were to:

(i) Enhance the management capacity of the MOH

(ii) Improve access to high- quality and affordable primary health care services, especially in rural and underserved areas.

In order to achieve the above goals, the Quality Improvement Program consisted of the following components:

Component 1: Upgrading Primary Health Care Network

- The development of functional standards for small health care facilities
- Capacity building to improve the capacity of the Ministry of health staff to plan and design primary health care clinics
- Replacement of approximately 40 substandard primary health care facilities, including equipment and furniture, with clinics that met quality standards.

Component 2: Establishing Health Management Information System

- The construction and development of a Health Information Center (HIC), including equipment and training of staff to provide information technology (IT) support for the ministry of Health.
- The development and maintenance of the foundations of a Health Management Information System (HMIS), including the development of a unified electronic information system for the Government Health Insurance (GHI) Department and the Specialized Treatment Office, which is part of the GHI program.
- The development and piloting of a Clinical Information System (CIS)

Component 3: Improving the Quality and Efficiency of Care:

- The expansion of the scope of the Quality Improvement programs, initiated under previous projects, to establish quality standards and introduce quality improvement measures for selected chronic diseases of high priority to the Ministry of Health
- Technical assistance to promote rational drug use which includes financing, printing and distribution of the Essential Drug List, developed by MOH with support from donors, mainly World Health Organization
- The development of clinical and operational standards for primary health care services to be implemented in the selected clinics to

complement the physical improvements achieved through Component 1.

- The development of clinical guidelines and laboratory tests.

Component 4: Project Management Support

- The establishment of a Project Implementation Unit (PIU) which carried out all aspects of routine project management, including the preparation of work programs and budgets; project financial management and procurement; coordination of technical inputs with the appropriate Ministry of Health departments; and monitoring, evaluation, and regular project reporting.
- A Project Coordination Committee (PCC) was established to oversee the implementation of the project. The PCC would be responsible for the provision of approvals of the project work program, review of progress reports and would also provide policy guidance and ensure effective coordination among Ministry of Health departments and other organizations.

The previous goals with their components were well negotiated and discussed between the Ministry of Health as the beneficiary of the Quality Improvement Program and the Word Bank as the funding agency .The priority issues facing the health sector were taken in to consideration while balancing implementation capacity with complexity. When the second Intifada started the second goal became even more relevant due to the severe restriction of movement imposed during the second Intifada. An alternative goal such as focusing on major internal organizational changes within the relatively newly established Ministry of Health would have been difficult, if not impossible, to achieve under the prevailing conditions. Thus, the choice was to focus on supporting incremental, but important, steps to increasing managerial capacities of the Ministry of Health building essential skills, and gradually introducing reforms that would allow the Ministry of Health to play a more effective role in the sector**.** (Document of the World Bank, 2005, p. 3).

The goals of the Quality Improvement Program were consistent with the Bank's effort to continue to rehabilitate the basic infrastructure, build institutions, and carry out institutional reform. They were also consistent with the Bank's sectoral Strategy. It should be noted that the goals of the Quality Improvement Program are also in agreement with the preliminary findings of an- ongoing health sector review, led by the Ministry of Health with support from the European Community , the World Health Organization , the Italian Cooperation, and the UK Department for International Development . (Document of the World Bank, 2005, p. 3).

The goals of the Quality Improvement Program followed not only the Ministry of Health (MOH) National Strategic Plan 1999- 2003, which addressed the need to complete the Primary Health Care (PHC) network, but also the World Bank's strategy for the West Bank and Gaza, 1998 which gave priority to human resources development, poverty alleviation, and the expansion, modernization, and financial sustainability of the health system. The achievement of the goals of the Quality Improvement Program was rated "satisfactory" according to the World Bank report. (Document of the World Bank, 2005, p. 4). This report stated despite difficult implementation circumstances, the program contributed to the development of managerial capacities within the Ministry of Health and improved access to high- quality primary care services, particularly in rural and under- served areas. Perhaps the most impressive achievements were made in developing planning and managerial capacities at the Ministry of Health and the development of the health insurance database. Other evidence concerning the achievement of the goals of the Quality Improvement Program is suggested by the evaluation results of the training courses that were offered during the project (36 courses) and the number of people trained. Pre- and post- training test evaluations often indicated very large learning gains (e. g., from 19 percent correct responses in pre- testing, to 90 percent correct responses after training). The second development objective has also been achieved. All replaced primary health care facilities meet facility standards. In addition, utilization rates in the

replaced clinics increased by 28 percent by the end of 2004 (the latest data available) and 46 new services were added suggesting that both access and quality of services have improved. This compares to a general reduction in visits to other Ministry of Health clinics during the same time period, in part due to closures. Finally, while improved health outcomes are typically difficult to quantify, the available results indicate a significant improvements in the quality of care. The (World Bank Report, 2005, p. 5) Stated that diabetes outcomes, which are measured by good metabolic control improved significantly. Furthermore, the percentage of diabetics with optimal outcome improved from 7 to 45 percent between 2002- 2004. In addition, the Client Accessibility, Utilization and Satisfaction Survey suggest a significant increase in patient satisfaction with the quality of care in the program facilities. It is clear that the four project components corresponded well to the goals of the Quality Improvement Program. Components 1 and 2, with their focus on improving the primary health care network and quality of health care through clinical guidelines, training, and the Clinic Information System, were directly related to achieving the second goal while Components 2 and 4 and parts of Component 1 and 3 were essential to the achievement of the first goal.

Question 2: *How was the cultural dimension taken in to considerations when the Quality Improvement Program was implemented?*

To answer this question we should look at the underlying believes values, norms, and behaviors that either inhibit or support quality improvement initiatives. The optimal culture is the one that fosters openness, collaboration, teamwork and learning from mistakes. Furthermore, we should examine if the Ministry of Health as the implementing organization took the needs of its professionals and customers in to consideration and if the physicians resisted or accepted working as members of teams. If the Quality Improvement Program is to be evaluated from the cultural dimension point of view, it can be confidently stated that the internal and the external customers of the Quality Improvement Program were the centre of the activities of the

program. (Document of the World Bank, 2005, p. 5)**.** The Quality Improvement Program implemented a comprehensive Primary Health Care Rehabilitation Program, under which 35 accessible clinics (5 in Gaza and 30 in the West Bank) were constructed in rural and/ or underserved areas serving a population of more than 365,000 persons**.** In addition to upgrading the physical environment of the clinics, a number of new services were introduced. A total of 46 new services were added at minimal cost, distributed across 26 clinics, including laboratory services, consultative specialist care, and family planning services. An important part of the Quality Improvement Program was the development of clinical guidelines for nine of the most common chronic conditions treated at the primary health care level. In the development process of these guidelines, nine teams from different disciplines in the Ministry of Health collaborated and worked as professional teams. Despite the environment of collaboration and teamwork during the development process, it should be stated that fixed salary- based remuneration of the Ministry of Health staff does not provide an incentive for quality improvements. Although full adherence to the guidelines will not be possible in the absence of incentive structures and monitoring and enforcement mechanisms, results from pilot testing indicate that the guidelines have already contributed to an increase in the quality of services provided. A number of pre- and post- surveys and analyses were carried out to monitor the impact of selected activities on the internal and external customers of the Quality Improvement Program. Among these surveys are the Client Access, Utilization and Satisfaction Survey which sampled 17 of the 35 new clinics. Respondents included both clinic managers (internal customers) and patients (external customers). The results of this study revealed that the project managed to support the primary health care services in poor and marginalized population in rural areas as 50% of the beneficiaries were under the poverty line. The clinics surveyed reported a 22% increase in clinic utilization after the program interventions, as the beneficiaries found the clinic to have better services which are closer to the local residents than other clinics in the surroundings. The survey also found that clinic managers reported numerous aspects of the replacement clinics better than before, in

particular, the lab services, the clinic facilities, equipment, waiting areas, treatment rooms, and the quality of services provided an additional 67% reported that the work load was better than before. The results also indicated that 90% of the beneficiaries were satisfied or strongly satisfied with the overall clinic performance. In addition, majority of the clinic managers indicated that the program managed to improve the clinic space including laboratory facilities and services; and provided suitable waiting and treatment rooms.

Question 3: *how was the technical dimension taken in to considerations when the Quality Improvement Program was implemented?*

This question relates to the training and information support systems. It relates to whether the people are sufficiently trained and supported by the necessary data and information systems to succeed in undertaking the health care quality improvement efforts.

Training

The Quality improvement Program focused on developing planning and managerial capacities at the Ministry of Health. Training was provided to the Ministry of Health staff in facilities standards design and supervision, as well as in environment management and maintenance of clinics. Technical assistance in health facility planning and management. Was also provided. A total of 36 courses were organized to improve management capacity of the Ministry of Health staff. The increased management capacity of the Ministry of Health staff is clear the evaluation results of the training courses that were offered during the project (36 courses) and the number of people trained. Pre- and post-training test evaluations often indicated very large learning gains (e. g., from 19 percent correct responses in pre- testing, to 90 percent correct responses after training**.** (Document of the World Bank, 2005, p. 5) . The Quality Improvement Program supported a number of training activities for the Palestinian Essential Drug List (PEDL) and financed technical assistance to review prescription practices. In response to the findings of the review, the MOH Department for Pharmaceuticals and the Quality

Improvement Program developed guidelines for how to reduce potentially dangerous drug interactions. In addition to training on these guidelines, a mechanism to identify and monitor potentially dangerous drug- drug interactions has been implemented in several hospitals and clinics. The diversity of clinical education among physicians in the West Bank and Gaza posed a particular challenge for standardization of quality of health care. To address this problem, the Quality Improvement Program supported the development of clinical guidelines for nine of the most common chronic conditions treated at the PHC level. The clinical guidelines were adapted from international guidelines with extensive participation of local experts to ensure acceptance, as well as applicability of the guidelines. The guidelines were pilot tested in selected facilities and produced satisfactory results. Extensive training was also carried out for two (diabetes and hypertension) of the nine guidelines

Information Support Systems

Despite difficult implementation circumstances, the Quality Improvement Program contributed to the improved access to high-quality primary care services, particularly in rural and under- served areas. The most impressive achievements in this area were the development of the health insurance database. A major target for the Quality Improvement Program was to access beneficiary registry from any government health insurance office in the West Bank and Gaza and this is now possible. This ability of the regional offices to access the central databases has been of great benefit during this current period, much greater than what had been anticipated, as it has allowed real- time registration and verification of beneficiary status in the regional GHI offices, which would otherwise have taken days, if not weeks or months, due to the closures and restriction of movements. **(**Document of the World Bank, 2005, p. 7)**.** The development of the Clinical Information System (CIS) which led to changes in the delivery schedule of pharmaceuticals in Gaza to reduce crowding on the first days of the month when the pharmaceuticals arrived. It also contributed to improving the utilization of clinic resources. Specifically, the cumulative percentage

of prescriptions issued in the health centers by the third day of each month declined by one- third (from 33 to 22 percent) between 2003 and 2004. In addition, the improved ability of Ministry of Health to predict the supply of drugs led to a reduction in the amounts ordered and stored each month. (Document of the World Bank, 2005, p. 7) **.** Furthermore, a Health Information Center (HIC) was constructed, equipped, and furnished in Nablus and Gaza. The HIC now provides both Information Technology and statistical data analysis functions used for planning purposes and publishes the annul health status report, which includes essential data on vital statistics and data for health planning and management. To further strengthen the planning capacity of the Ministry of health, the World Bank which is the funding agency for the Quality Improvement program together with United States Agency for International Development (USAID) developed a Geographic Information System (GIS). The GIS contains essential information that will enable rational planning and expansion of health facility networks in the future.

Question 4: *How was the structural dimension taken in to considerations when the Quality Improvement Program was implemented?*

This question relates to the presence or absence of appropriate mechanisms to facilitate learning and to disseminate the best practices through out the Ministry of Health .This includes forming task forces, committees, quality improvement councils and so on. As part of the quality improvement process, a Committee for Quality of Pharmacy was formed. This committee meets regularly in an effort to oversee the entire process of quality assurance for pharmaceuticals, including drug quality, and prescription practice policy. Furthermore and as part of the quality improvement process, a Quality Improvement Advisory Committee was formed. Although closures prevented the Quality Improvement Advisory Committee (QIAC) from meeting, the quality improvement team was able to initiate a number of other activities intended to institutionalize the quality improvement processes. A variety of approaches were utilized, including the creation of alliances with a number of departments within

the MOH, which subsequently incorporated many of the quality improvement activities into their routine work. A Quality Improvement Committees were also formed in many hospitals and primary health care clinics to serve as focal points for the quality improvement process. These committees continue the quality improvement initiatives initiated by the program. Although the program supported the first steps toward acceptance and institutionalization of quality improvement, the role of the quality improvement team, perhaps within a semi- independent agency for quality assurance, might gain more importance if other reforms, such as performance- based incentives, contracting, and accreditation standards, were also implemented. While the quality improvement activities have resulted in a number of achievements, sustainability of these efforts will, at a minimum, require the establishment of a fully staffed Quality Improvement Unit (QIU) within the Ministry of Health. Such a unit has already been established in the West Bank, and the establishment of a similar unit in Gaza is under discussion. In the West Bank, the QIU is continuing its work with the quality committees that were established at all the larger health care organizations.

Conclusion

This research focused on the dimensions or factors that are critical for successful quality improvement implementation. These dimensions or factors were studied using an analytical research based on the theory testing approach using participant observation as a qualitative research methodology. First, the strategic dimension necessary to the successful implementation of quality improvement initiatives was analyzed and found that the goals and objectives of the Quality Improvement Program were satisfactory implemented. Second, analyzing the cultural dimension shows that the needs of the internal and external customers were considered but more focus should be on fostering openness, collaboration, teamwork and learning from mistakes. Third, the technical dimension was taken into consideration as necessary training and information support systems were provided in order to develop the

planning and managerial capacities. Finally, the components of the structural dimension such as providing the appropriate mechanisms to facilitate learning and disseminate the best practices such as forming task forces, committees, quality improvement councils and units were introduced.

Recommendations

The journey of health care quality improvement in the Palestinian Ministry of Health from 2000-2004 resulted in the following lessons and recommendations:

- The goals and design of quality improvement initiatives must be viewed in the context of an environment of protracted political and economic instability affecting public services and the welfare of the Palestinian population. The Ministry of Health should take the responsibility for the implementation of the Quality Improvement Program. This will secure better coordination and increases ownership and likelihood of sustainability
- Prior to designing and implementing of Health Management Information systems (HMIS) projects that are to operate in multiple sites, it is necessary to first invest in building capacity of the client to prepare an analysis of operating procedures in the different sites as well as to analyze the types of information and reports which the system will be expected to produce. The work on software development should then be outsourced to ensure appropriate installation training, troubleshooting, and maintenance of the system.
- While training is essential, the effect wears off fairly rapidly. A focus on outcome- related indicators with feedback about performance to the individual provider is essential to change provider behavior. Performance- based remuneration of providers, quality assurance, and accreditation requirements are also like to enhance adherence to clinical practice guidelines.

- When implementing Quality Improvement Programs in decentralized settings, like the West bank and Gaza, where travel is difficult or impossible, special attention should be paid to the establishment of effective coordination mechanisms between the different project implementation entities.
- Quality Improvement Programs design would be more effective if all concerned parties were involved in the project design phase, particularly, the executive level and those responsible for implementation.
- Quality Improvement Programs implementation would have greatly benefited if a comprehensive integrated action plan for the first year had been developed prior to program effectiveness. Such an action plan should include not only the different activities but define responsibility, physical and human resources etc., streamlined with a financial and procurement action plan.
- Quality Improvement Programs management would benefit from more clearly and better defined monitoring and evaluation indicators which could serve as a tracking and guidance tool during project implementation.
- It would be highly desirable to include local technical consultants in the program preparation phase. This is expected to assure local capacity building in program design and preparation, better understanding of the design and therefore efficient implementation of its components

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